

WO 2004/062916

PCT/NL2003/000894

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C L A I M S

1. Device for printing objects having a conically shaped surface to be printed, said device providing a printing member having one or a number of successive printing
5 plates or printing cloths, a drive mechanism for the printing member, one or more printing units for applying printing inks onto printing plates or printing cloths and one or more counterpressure members on which said surface to be printed is held and supported while being printed, cha-
10 racterized in that the surface of the printing member onto which the printing plates or printing cloths are applied, is at least partly formed in such a way, that on rolling of the printing plates or printing cloths across the conical surface of the object to be printed the circumferential veloci-
15 ties of printing member and conical surface to be printed are uniform or almost uniform at every point along the full line of contact or at the complete contact surface.

2. Device according to claim 1, characterized in that the surface of the printing member onto which printing
20 plates or printing cloths are applied has at least partly the inner or outer surface of a circular cone.

3. Device according to claim 2, characterized in that the surface of the printing member onto which printing
plates or printing cloths are applied is in the shape of a
25 truncated circular cone.

4. Device according to claim 3, characterized in that the the counterpressure member or each of the counterpressu-
re members are in the shape of a truncated circular cone, in which a counterpressure member with an object to be printed
30 will be positioned in a predetermined position in relation to the printing member and that the axes of printing member

WO 2004/062916

PCT/NL2003/000894

10

and counterpressure member intersect one another in a predetermined point.

5. Device according to claims 2-4, further comprising a driven object support for conical objects, said object support substantially consisting of a number of counterpressure members, intended for being able to receive a conical object, which are mounted on the outer ends of arms projecting radially in relation to a common pivot point, characterized in that the circumferential length of the circular cone-shaped printing member is chosen depending on the number of printing plates or printing cloths to be mounted on the printing member and on the driving speeds of printing member and object support and that the cone angle of the printing member is chosen depending on the circumferential length of the printing member and the cone angle of the conical object to be printed.

6. Device according to claim 5, characterized in that for the cone angle of the conical object to be printed one starts from an average cone angle or the most frequently occurring cone angle of the conical objects to be printed.

7. Device according to claims 1-6, characterized in that the printing unit for offset print has a conical printing plate cylinder having such a cone angle and orientation of the cone axis that the conical printing plate cylinder exactly connects to the cone surface of the printing member.

8. Device according to claim 7, characterized in that said printing unit further has at least one conical form roller connecting to the conical printing plate roller.

9. Device according to claim 8, characterized in that the conical form roller is preceded by a distribution roller

WO 2004/062916

PCT/NL2003/000894

11

having such a cone angle that the oscillating cylinder mounted between distribution roller and form roller can be of circular cross-section.

10. Device according to claim 9, characterized in that
5 the further rollers preceding the conical distribution roller, including inking roller, vibrating roller and further distribution roller, are cylindrical and of circular cross-section.

11. Printing unit for use together with the device
10 according to one or more of the preceding claims, characterized in that the printing unit for offset print has a conical printing plate cylinder having such a cone angle and orientation of the cone axis that the conical printing plate cylinder exactly connects to the cone surface of the prin-
15 ting member.

12. Printing unit according to claim 11, characterized in that at least one conical form roller connecting to the conical printing plate roller has been provided.

13. Printing unit according to claim 12, characterized
20 in that the conical form roller is preceded by a distribution roller having such a cone angle that the oscillating cylinder mounted between distribution roller and form roller can be of circular cross-section.

14. Printing unit according to claim 13, characterized
25 in that the further rollers preceding said conical distribution roller, including ink roller, vibrating roller and further distribution roller are cylindrical and of circular cross-section.
